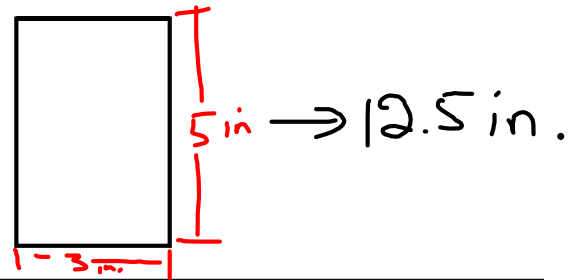




Timer - persistence.swf

MATHEMATICS

Karen will enlarge the photograph shown below.



A. While maintaining the ratio of height to width, Karen will increase the height to 12.5 inches. What will be the width of the enlarged photograph? Show and explain your work.

$$\frac{3 \text{ in}}{5 \text{ in}} = \frac{x}{12.5} \rightarrow \text{new width}$$

$$x = 7.5 \text{ is new width.}$$

$$\frac{7.5}{12.5} = .6 \quad \frac{3}{5} = .6$$

To find the new width
I set up a proportion. The
new width 7.5 inches.

B. Karen will use a copy machine to enlarge the photograph. The copy machine increases the area of the photograph by any percentage, while maintaining the height-to-width ratio of the original. By what percent does Karen need to enlarge the area of the original photograph? Show and explain your work.

C. Before framing, Karen surrounded the enlarged photograph with a 2-inch border. Explain the effect of the border on the proportional relationship between the height and width.